

**ROTARY VALVE TYPE VARIABLE VALVE TIMING MECHANISM**

Patent Number: JP2241925  
Publication date: 1990-09-26  
Inventor(s): IWAMOTO HIROHIKO; others: 02  
Applicant(s):: MITSUBISHI MOTORS CORP  
Requested Patent: ☐ JP2241925  
Application Number: JP19890059746 19890314  
Priority Number(s):  
IPC Classification: F02B29/08 ; F01L7/02  
EC Classification:  
Equivalents:

**Abstract**

**PURPOSE:** To reduce a valve timing width and maintain the maximum time area large by constituting a rotary valve of two outer and inner valve members rotatably driven in the opposite directions to each other with identical rotational speed.

**CONSTITUTION:** A rotary valve 13 disposed in the upstream side of an intake valve 7 in an intake path 5 is constituted of outer and inner cylindrical valve members 14, 15 rotatably fitting each other and respectively provided with through holes 16, 17 having equal path area and extending diametrically. The valve members 14, 15 are rotated in the opposite directions to each other with a half rotational speed of a cam shaft 10 to open the intake path 5 in synchronization with the opening of the intake valve 7. Thus, the large maximum time area provided by the valve members 14, 15 is maintained while the valve timing width of the rotary valve 13 is adapted to approximately coincide with the valve timing width of the intake valve 7. An amount of intake air is sufficiently ensured, while the valve timing can be properly controlled according to the running condition of an engine.

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